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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/634,856	08/06/2003	Satoshi Hirosawa	066409-224	9153

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EXAMINER	
WYSZOMIERSKI, GEORGE P	

ART UNIT	PAPER NUMBER
1742	

DATE MAILED: 07/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

15 2

Office Action Summary	Application No.	Applicant(s)	
	10/634,856	HIROSAWA ET AL.	
	Examiner	Art Unit	
	George P. Wyszomierski	1742	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on 20050503.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-5 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-5 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☒ Certified copies of the priority documents have been received in Application No. 07/204,553.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1, 2 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fujimura et al. (U.S. Patent 4,773,950).

Table 3 of Fujimura et al. discloses examples of magnetically anisotropic sintered magnets containing iron, boron, a rare earth element, and one or more of the "A" elements as defined in the instant claims. A number of these examples have iHc and BH_{max} values within the ranges as defined in the instant claims. Additionally, column 4 of Fujimura indicates that many of the optional elements recited in instant claim 2 may be present in such magnets. While no specific example of the prior art contains all of the elements as presently recited, the overlap in composition between the present claims and the Fujimura disclosure creates a prima facie case of obviousness of the presently claimed invention; compare *In re Malagari* (182 USPQ 549). One of ordinary skill in the art would have arrived at the contents of the claimed magnets by optimizing the amounts of the elements as disclosed by Fujimura et al., because Fujimura discloses the utility of compositions over the entire range disclosed therein.

3. Claims 3 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fujimura et al., as above, in view of either Matsuura et al. (U.S. Patent 4,597,938) or Sagawa et al. (U.S. Patent 4,792,368).

The Fujimura magnets, discussed supra, do not contain cobalt. However,

a) As noted in item 2(e) supra, the instant claims recite "less than" a certain percentage of cobalt, and therefore do not require cobalt to be present in the claimed products.

b) Both Matsuura and Sagawa disclose sintered magnets similar to those of Fujimura, and which also contain cobalt. According to Matsuura column 2, the cobalt raises the Curie temperature of the magnet, and according to Sagawa column 8, the cobalt gives the magnets "better resistance against temperature dependency". These are the same features as desired by Applicant, as indicated at page 8, lines 12-14 of the present specification. The teachings of Matsuura et al. or Sagawa et al. would have motivated one of ordinary skill in the art, desirous of such properties, to incorporate cobalt into the magnets disclosed by Fujimura et al.

4. Claims 3 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable Tokunaga et al. (U.S. Patent 5,041,172).

Tokunaga et al. discloses sintered magnets containing iron, boron, a rare earth element, cobalt, one or more of the "A" elements of the instant claims, and one or more of the optional elements of instant claim 5. The highest iHc and BH_{max} values in the prior art appear to occur when the amount of cobalt is within the presently claimed range (see Tables 2 and 3 of Tokunaga), and numerous compositions set forth in those Tables have values for these properties within the presently claimed ranges. While no specific example of the prior art contains all of the elements as presently recited, the overlap in composition between the present claims and the disclosure of Tokunaga et al. creates a prima facie case of obviousness of the presently claimed invention; compare *In re Malagari* (182 USPQ 549). One of ordinary skill in the art would have arrived at the contents of the presently claimed magnets by optimizing

the amounts of the elements as disclosed by Tokunaga et al., because the prior art reference discloses the utility of magnet compositions over the entire range disclosed therein.

5. In a response filed May 3, 2005, Applicant alleges that the claimed invention can be distinguished from the prior art in that the prior art does not disclose the combination of a maximum energy product of more than 20 MGOe, a coercive force of more than 15 KOe, and the use of each of Al, Si and Cu in specified amounts as defined in the instant claims. Applicant's arguments have been carefully considered, but are not persuasive of patentability because the prior art references (particularly Fujimura '950 and Tokunaga '172) disclose numerous examples of sintered magnetic compositions, the large majority of which possess properties within the presently claimed ranges; note particularly Fujimura '950 Table 3 or Tables 1-6 of Tokunaga. Therefore, the examiner's position is that the prior art clearly teaches how to obtain the properties as required in the present invention in Fe-R-B-M sintered magnets. (The rejection based on Fujimura '255 is withdrawn at this time as this patent would not have led one of skill in the art to the presently claimed properties). With regard to specific elements present, the prior art indicates that the levels of Si and Cu presently claimed are within the levels of typical impurities in such magnets (see Fujimura '950 column 4, lines 44-54) and further disclose specific examples containing aluminum. Thus, no distinction is seen in this aspect of the invention, i.e. the claimed invention would have been arrived at merely by optimizing the known ranges of alloying elements in sintered magnets, as set forth in the rejections.

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to George Wyszomierski whose telephone number is (571) 272-1252. The examiner can normally be reached on Monday thru Friday from 8:00 a.m. to 4:30 p.m. Eastern time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King, can be reached on (571) 272-1244. Effective October 1, 2003, all patent application related correspondence transmitted by facsimile must be directed to the central facsimile number, (703) 872-9306. On July 15, 2005, the Central FAX Number will change to 571-273-8300. This new Central FAX Number is the result of relocating the Central FAX server to the Office's Alexandria, Virginia campus.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

GEORGE WYSZOMIERSKI
PRIMARY EXAMINER
GROUP 1700

GPW
July 5, 2005